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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,489	03/04/2005	Yasuhisa Kitahara	023971-0544	1853
22428 7590 03/12/2007 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER EDWARDS, LOREN C	
			ART UNIT 3748	PAPER NUMBER
			MAIL DATE 03/12/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

JP

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/526,489

Applicant(s)

KITAHARA, YASUHISA

Examiner

Loren C. Edwards

Art Unit

3748

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 12 February 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: _____.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

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Continuation of 11. does NOT place the application in condition for allowance because: With regards to Claim 2, Applicant argues that Salvat does not disclose a preliminary fuel injection being performed at or near top dead center, and a main combustion being started after the preliminary combustion is finished. The examiner respectfully disagrees. Salvat does not specifically disclose the position of the crank in any of Figures 2-4, however a brief examination of Figure 4 will allow one of ordinary skill in the art to conclude that an area near the peak of the curve depicted Figure 4 can be concluded as TDC. TDC is generally the point between the end of the compression cycle and the beginning of the expansion cycle. The first peak of Figure 4 will be interpreted by one of ordinary skill in the art at the end of the compression cycle, which is then followed by a second peak, which is the point where combustion has occurred. Further, the reference describes I'3 as occurring in a window with an angular shift of 15 to 150 degrees (Col. 3, Lines 20-29), which can be seen in Figure 3 as the space between the preliminary injection, I'2, and the main injection I'3. The conclusion can be drawn that the midway point of the x-axis of Figures 2-4 is intended to represent 0 degrees, or TDC. The examiner is referring to I'2 as the preliminary injection that is performed at or near top dead center. Comparing Figure 3 and Figure 4 reveals that this injection is being performed at or near top dead center.

Applicant has further argued that Salvat does disclose an absolute value for either the preliminary or the main injection. The examiner agrees that Salvat does not disclose an absolute value, but does not need to in order to read on the language of Claim 2. The phrase "at or near" in Claim 2 does not limit said claim to an absolute value.

With regards to Claims 30 and 32, Applicant has argued that Tashiro fails to disclose a main combustion after the end of a preliminary combustion. The examiner respectfully disagrees. Figure 1a of Tashiro discloses 2 injections that result in 2 combustions. Tashiro refers to the first injection as a pilot injection, which is used for securing a kindling charcoal (Tashiro; Col. 4, Lines 3-11). The use of the term "kindling charcoal" is rare in the art and therefor should be taken in a literal sense. According to the Merriam-Webster dictionary, charcoal is "a dark or black porous carbon prepared from vegetable or animal substances (as from wood by charring in a kiln from which air is excluded)", and kindling is an "easily combustible material for starting a fire". Therefor, Tashiro discloses that the pilot injection is "burned", or combusted, to secure a "kindling charcoal", or a material in the absence of air that is used to start a fire. The absence of air would require the initial combustion to have ceased. This leads to the conclusion that the initial injection is combusted and then the combustion ceases and forms a material that is hot enough to cause a subsequent combustion when the main injection is performed. Therefor, Tashiro discloses controlling fuel injection to start main combustion after an end of the preliminary combustion.